

Components of specific imaged gene delivery and diagnosis system

①

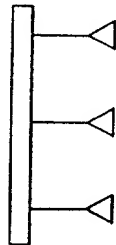


Characteristics:

- Long positively charged backbone
- Branching points
- ● = G3R7, TAT domains or other

transfection/endolysosome/nuclear targeting agents

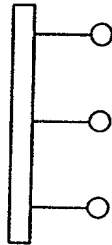
②



Characteristics:

- Short negatively charged backbone
- Branching points or conjugation points
- Δ = imaging moieties

③



Characteristics:

- Short negatively charged backbone
- Branching points or conjugation points
- ○ = variable selective targeting agent (Fab, ligand, etc.)

④



Characteristics:

- Oligo or cDNA with transgene of interest

⑤



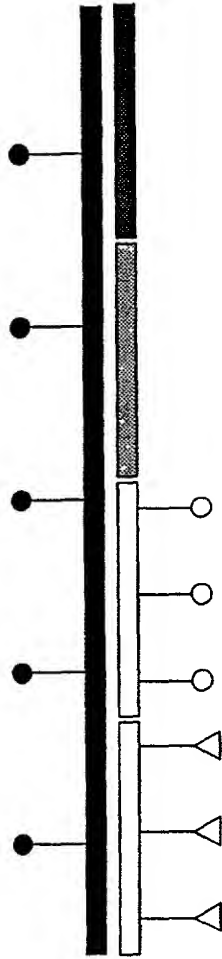
Characteristics:

- DNA encoding persistence factors

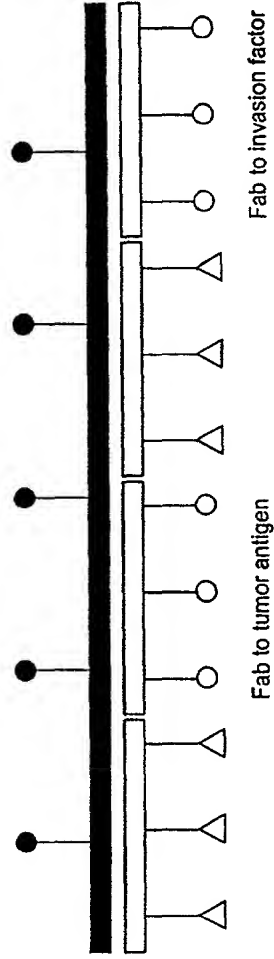
Combinations of components above give enhanced specificity ③, diagnostic imaging ②, and gene delivery ④ with high efficiency ① and persistence ⑤.

Examples of potential assembled systems

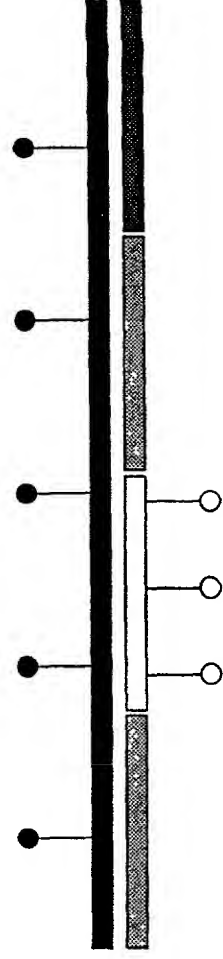
All functions



Diagnostic/prognostic imaging



Two gene/no imaging system for related genes



Title: MULTI-COMPONENT BIOLOGICAL TRANSPORT SYSTEMS
Sheet 3 of 12

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Title: MULTI-COMPONENT BIOLOGICAL TRANSPORT SYSTEMS
Sheet 7 of 12

Title: MULTI-COMPONENT BIOLOGICAL TRANSPORT SYSTEMS
Sheet 8 of 12

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Title: MULTI-COMPONENT BIOLOGICAL TRANSPORT SYSTEMS
Sheet 9 of 12

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Title: MULTI-COMPONENT BIOLOGICAL TRANSPORT SYSTEMS
Sheet 10 of 12

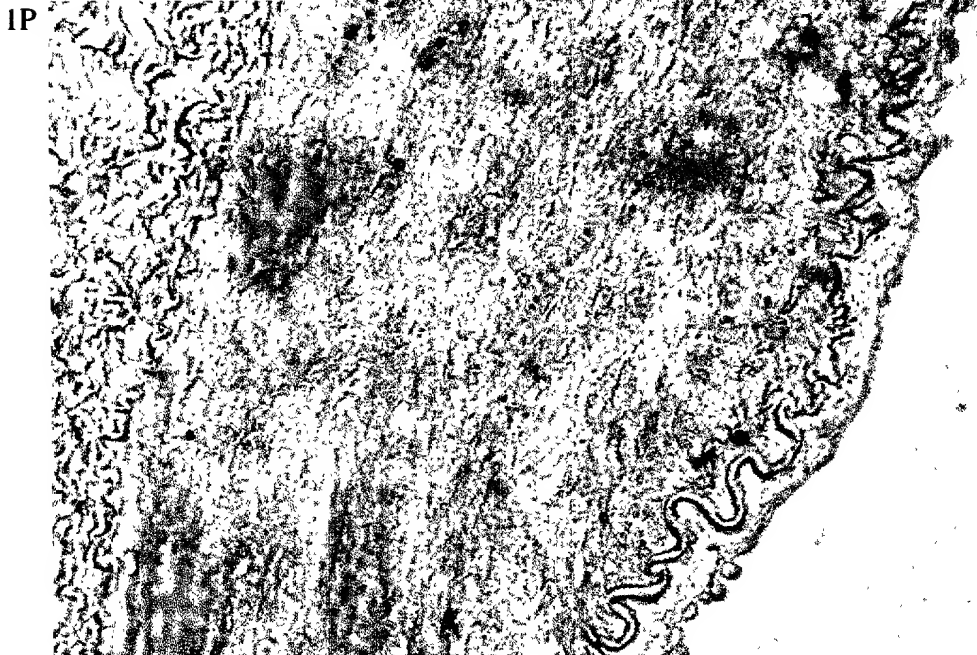
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20154-000110

Attorney Docket No.: 20154-000110
Applicant: Jacob Waugh and Michael Dale

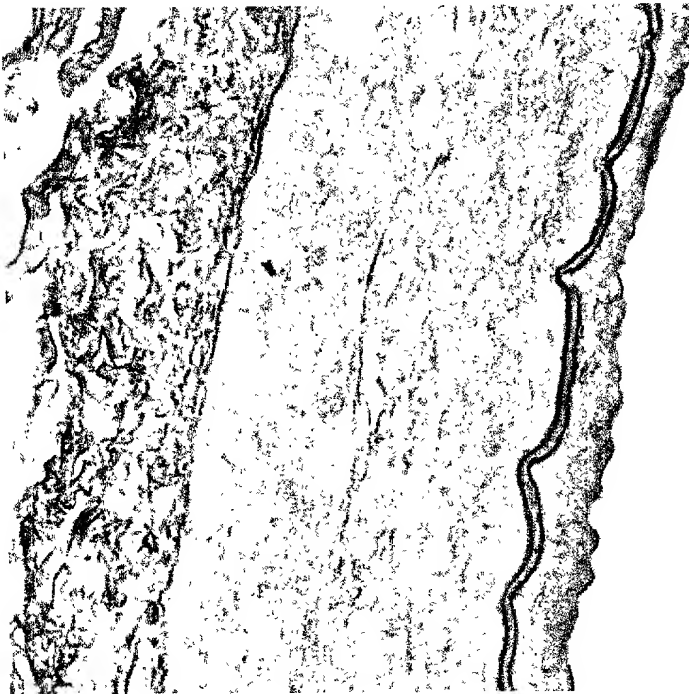
Title: MULTI-COMPONENT BIOLOGICAL TRANSPORT SYSTEMS
Sheet 11 of 12



Att'y. Docket No.: 20154-000110
Applicant: Jacob Waugh and Michael Dale

Title: MULTI-COMPONENT BIOLOGICAL TRANSPORT SYSTEMS
Sheet 12 of 12

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